Serial Number: 10/600,048 Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

Dkt: 884.899US1 (INTEL)

<u>REMARKS</u>

This responds to the Office Action mailed on <u>September 2, 2005</u>. Claim 10 is amended. Such amendment is not related to patentability and is not narrowing. Claims 1-30 are pending in this application. Applicant does not admit that the cited references are cited art and reserves the right to swear such references at a later date.

Double Patenting Rejection

Claims 1-30 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of co-pending Application No. 10/600.047. A Terminal Disclaimer in compliance with 37 CFR 1.321(b) (IV) is enclosed herewith; this rejection is therefore moot.

§102 Rejection of the Claims

Claims 1-3 were rejected under 35 USC § 102(b) as being anticipated by Barker et al. (U.S. 5,617,577). Applicant respectfully traverses the rejection.

Among the differences, claim 1 recites "a first processor having a first processor element and at least one input/output (I/O) port within a first port ring." The Office Action indicated that the first processor is disclosed by "one of the PME, such as +Z." Office Action at page 2. However, the Office Action does not indicate where Barker discloses that the PMEs include a processor element. Applicant submits that the recitations in Barker do not disclose that the PMEs include processor elements. Accordingly, because the cited reference does not show all of the claim limitations, Applicant respectfully submits that the rejection of claim 1 under 35 U.S.C. §102 has been overcome. Claims 2-3 depend from claim 1 and distinguish the reference for at least the same reason.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/600,048 Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

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§103 Rejection of the Claims

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Claims 4-12 and 18-30

Claims 4-12 and 18-30 were rejected under 35 USC § 103(a) as being unpatentable over Barker et al. (U.S. 5,617,577) in view of Wilson (U.S. 5,557,734).

The Office Action posits several reasons for combining the cited references (Barker and Wilson). However, the Office Action does not point to a single passage in the references that teaches or suggests the cited combinations. Furthermore, the Office Action has not identified any references supporting its assertions about knowledge of ordinary skill in the art. Therefore, Applicant submits that the Office Action has improperly combined the cited references.

Claims 4-6

In addition to the remarks set forth above regarding claim 1 (from which claim 4 depends), Applicant respectfully submits the following remarks. Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness because even if combined, the cited references fail to teach or suggest all of the elements of claim 4.

Among the differences, claim 4 recites "the first processor is configured to transmit output from an image process operation to the second processor through the at least one I/O port of the port ring of the third processor based on a logical connection." The Office Action indicated that Barker at Fig. 2 and column 12, lines 1-18 discloses this limitation. The Office Action indicated that "any one of the PME can indirectly connects to any other PME via any

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

number of intermediate PMEs . . ." (emphasis added) Office action at page 4. Therefore, the Office Action relies on an alleged ability of a PME to connect to any other PM through a number of intermediate PMEs. However, Barker does not disclose a logical connection among the PMEs. The Office Action also indicated that this limitation is disclosed by Wilson in Fig. 1. Applicant respectfully submits that the description of Figure 1 in Wilson does not disclose or suggest a logical connection for transmission of an output of an operation from one processor to a different processor. Accordingly, neither reference discloses or suggests a logical connection for transmitting an output of an operation from a first processor to a second processor through a third processor.

Page 11

Dkt: 884.899US1 (INTEL)

Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claim 4 under 35 U.S.C. §103 has been overcome. Claims 5-6 depend from claim 4 and distinguish the references for at least the same reason.

Claims 7-8

With regard to claim 7, the Office Action seems to reject claim 7 in page 3, ¶4, 2nd paragraph. Such paragraph indicates that this is a discussion of claim 1 but the last sentence references claim 7. Based on the substance of the rejection (such as the recited claim language) and because claim 1 was previously addressed in the Office Action, Applicant assumes that this paragraph is addressing claim 7.

Among the differences, claim 7 recites "one image signal processor of the number of image signal processors includes at least one processor element and a port ring." The Office Action indicated that this limitation is disclosed by the PMEs in Fig. 2 of Barker. In contrast to the rejection of claim 1, the Office Action assumes that the PME is equated to the processor element. However, the Office Action does not indicate where Barker discloses that the PMEs are part of an image signal processor. The Office Action attempts to use Wilson for the limitation of the image signal processor. However, neither Barker nor Wilson discloses that an image signal processor includes at least one processor element.

Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claim 7 under 35

Serial Number: 10/600,048 Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

U.S.C. §103 has been overcome. Claim 8 depends from claim 7 and distinguishes the references for at least the same reason.

Claims 9-10 and 12

In addition to the remarks set forth above regarding claim 7 (from which claims 9-10 depend), Applicant respectfully submits the following remarks. Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness because even if combined, the cited references fail to teach or suggest all of the elements of claims 9-10.

With regard to claim 9, among the differences, claim 9 recites "wherein the number of ports within the port rings of the number of image signal processors are configured to establish logical connections between the number of image signal processors." With regard to claim 10, among the differences, claim 10 recites "wherein the at least one processor element is configured to output a result of the one of the number of image process-based operations to a different processor element in a different image signal processor through one of the logical connections."

The Office Action indicated that "[c]laims 9 and 10 are similar in scope to claim 9, and thus are rejected under similar rationale." Office Action at ¶4, page 5. In light of the remarks set forth regarding claim 4, Applicant respectfully submits neither Barker nor Wilson disclose that an image signal processor includes at least one processor element.

Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 9-10 under 35 U.S.C. §103 has been overcome. Claim 12 depends from claim 9 and distinguishes the references for at least the same reason.

Claim 11

In addition to the remarks set forth above regarding claim 9 (from which claim 11 depends), Applicant respectfully submits the following remarks. Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness because even if combined, the cited references fail to teach or suggest all of the elements of claim 11.

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

With regard to claim 11, among the differences, claim 11 recites "wherein the source image signal processor is to transmit an initialize signal, prior to transmission of data along the logical connection, through the number of intermediate image signal processors to the destination image signal processor in the order that data is transmitted in the logical connection." (emphasis added). The Office Action indicated that this limitation is disclosed by Barker in Fig. 2 and at column 12, lines 1-18.

As described above, Barker does not disclose the use of logical connections. Barker also does not disclose an initialization signal being transmitted along the logical connection prior to transmission of data. Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claim 11 under 35 U.S.C. §103 has been overcome.

Claims 18-30

With regard to claims 18 and 25, among the differences, claims 18 and 25 recite "forwarding an output of the image process operation through a logical connection that includes a data path through a number of ports of port rings of a number of image signal processors, independent of image process operations in the number of image signal processors." The Office Action indicated that claims 18-21 and 25-27 are similar in scope to claims 7-12, and thus are rejected under similar rationale." Office Action ¶4, page 5. As described above, none of the references disclose or suggest a logical connection for transmitting an output of an image process operation. Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 18 and 25 under 35 U.S.C. §103 has been overcome. Claims 19-21 and 26-27 depend from claims 18 and 25, respectively, and distinguish the references for at least the same reason.

With regard to claims 22 and 28, among the differences, claims 22 and 28 recite "registering the logical connection with ports of the source image signal processor, the destination image signal processor and the number of intermediate image signal processors." The Office Action indicated that "[c]laims 22-24... and 25-27 are also similar in scope to claims 7-12, and thus are rejected under similar rationale." Office Action ¶4, page 5. As described above, none of the references disclose or suggest a logical connection. Moreover,

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/600,048

Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

none of the references disclose registering a logical connection. Therefore, neither reference alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 22 and 28 under 35 U.S.C. §103 has been overcome. Claims 23-24 and 29-30 depend from claims 22 and 28, respectively, and distinguish the references for at least the same reason.

Page 14

Dkt: 884.899US1 (INTEL)

Claims 13-17

Claims 13-17 were rejected under 35 USC § 103(a) as being unpatentable over Barker et al. (U.S. 5,617,577) in view of Wilson (U.S. 5,557,734) and Poplin (U.S. 2003/0063213).

The Office Action posits several reasons for combining the cited references (Barker, Wilson and Poplin). However, the Office Action does not point to a single passage in the references that teaches or suggests the cited combinations. Furthermore, the Office Action has not identified any references supporting its assertions about knowledge of ordinary skill in the art. Therefore, Applicant submits that the Office Action has improperly combined the cited references.

With regard to claim 13, among the differences, claim 13 recites "a host processor to configure a number of logical connections among the number of image signal processors." The Office Action indicated that Barker "teaches a host processor (Fig. 1, 1)..." Office Action at ¶5. Barker does include a host processor 1 in Fig. 1. However, Barker does not disclose or suggest that the host processor 1 configures a number of logical connections among the number of image signal processors. Moreover, none of the cited references disclose or suggest logical connections (as described above).

Accordingly, because the cited references do not teach or suggest all of the claim limitations, Applicants respectfully submit that the rejection of claim 13 under 35 U.S.C. §103 has been overcome. Claims 14-17 depend from claim 13 and distinguish the reference for at least the same reason

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/600,048 Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 371-2103) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

LOUIS A. LIPPINCOTT

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Date _ 2-2-06

By_

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 2nd day of February, 2006.

Name

Signature